

## POINTING DEVICE WITH SOLID-STATE ROLLER

### ABSTRACT OF THE DISCLOSURE

A solid-state roller on a pointing device with enhanced features. The solid-state design described herein allows the sensor to be placed on any shape of surface, such as one that has curvature in two directions. In one embodiment, a trench or downward curve contains sensors for detecting finger movement. The user's finger can thus bend about a knuckle in a curved motion to activate the sensor, requiring little or no movement of the finger up and down. The solid-state sensors can be of one of a number of designs. In one embodiment, multiple electrodes are contacted by a finger as it moves. Each electrode is coupled to a capacitive detection circuit, for detecting the change in capacitance as the electrode is contacted by the finger.

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